(b) The variety has already been released by Government of Tamil Nadu for cultivation by the farmers.

Transgenic Crops

1607. SHRI C. RAMACHANDRAIAH: Will the Minister of AGRICULTURE be pleased to state:

(a) whether Government are considering transgenic as an important area for future development of agriculture;

(b) if so, what are the crops in which research is being conducted;

(c) the amount earmarked for the transgenic research;

(d) the details of scientists working in the area;

(e) the tentative time for developing transgenic seeds;

(f) whether ICAR can alone compete with MNCs and developed nations on research programmes; and

(g) whether Government will consider having a joint venture research activity with private sector in transgenics?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA): (a) Yes, Sir.

(b) Research is being conducted in several crops such as rice, sorghum, maize, chickpea, pigeonpea, cotton, brassica, banana, papaya, tomato brinjal, potato, cassava, cabbage, sugarcane, grapes etc. by the National Agriculture Research System in the country.

(c) Funds have been provided under Plan/Non-Plan to promote biotechnological applications in agriculture mainly by the Indian Council of Agricultural Research (ICAR) and Department of Biotechnology (DBT). Funds have been earmarked to various organizations/institutes of the National Agricultural Research System for research in the broad area of biotechnology, which also includes research in transgenics. Besides need-based institutes/centrres, there are centres such as National Research Centre on Plant Biotechnology, New Delhi (Rs. 5.46 crores approx. being the Plan and Non-Plan outlay for the year 2004-05) which is working exclusively on agricultural biotechnology including transgenic research.

The DBT funding is to the tune of about Rs. 10.00 crores per year for R&D activities pertaining to these crops/transgenic development. Funding of need-based specific project on transgenics in agriculture is also carried out.

(d) In the ICAR, the total number of scientists in plant biotechnology is:-

Discipline	**Sanctioned**	**In position**
Bio-technology (Plant Sciences)	99	68

Out of the above scientists, several are working towards development of transgenics.

(e) Time for development of transgenics depends upon the specific gene of interest, technology used etc. it generally takes about 5 to 7 years to develop transgenics in crops. After this further time is required for bio-safety tests and fields trials before release.

(f) National Agricultural Research Sysgtem encompassing all its components of public sector, private sector and several other agencies/ institutes may collectively meet the national need of research programmes in transgenics. Development of transgenics requires team effort.

(g) A symbiotic partnership, rather than joint venture alone, between all components of the National Agricultural Research System may be beneficial.

Agricultural production

1608. SHRIANAND SHARMA: Will the Minister of AGRICULTURE be pleased to state:

(a) whether agricultural production during 2004-2005 is likely to meet the projected targets; and

(b) if not, the reasons of deceleration and the steps proposed to boost agricultural growth?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA): (a) The targeted production of foodgrains and